REMARKS/ARGUMENTS

These remarks are made in response to the final Office Action of May 3, 2004 (Office Action). As this response is timely filed within the 3-month shortened statutory period, no fee is believed due.

In paragraph 2, the Examiner has objected to claims 16 and 39 for minor informalities. In response, Applicants have amended claims 16 and 39 as suggested by the Examiner. Responsive to this correction, Applicants respectfully request the objections of paragraph 2 be withdrawn.

In paragraph 3, the Examiner has rejected claims 1, 3-5, 7-11, 13-21, 23-24, 26-28, 30-34, and 36-45 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,546,263 to Petty, *et al.* (Petty). In paragraph 4, the Examiner has rejected claim 46 under 35 U.S.C. § 103(a) as being unpatentable over Petty and in view of U.S. Patent 4,901,221 to Kodosky, *et al.* (Kodosky).

In response to the Office Action, Applicants have amended independent claims 1, 10, 19, 23, 24, 33, and 42. These amendments clarify two aspects of the invention. First, the amendments clarify that graphical representations associated with network component metrics are displayed upon a machine remotely located from one or more of the network components to which the graphical representations relate. Accordingly, the display can occur upon an administrative console remotely located from the monitored network components. Support for this clarification can be found in FIG. 1, FIG. 2, and FIG. 3, as well as in the specification.

Second, the amendments clarify that the selection of displayed metrics are based upon a user selection. Accordingly, the administrative display can be configured by a user to suit the needs of the user. Support for this clarification can be found in FIG. 2, as well as in any of a variety of places in the specification, such as at page 21, lines 15-18. No new matter has been added as a result of these amendments.

Prior to addressing the rejections on the art, a brief review of the Applicants' invention is in order. The Applicants' claimed and disclosed subject matter teaches a system, method, and apparatus for dynamically exposing the nodes of a graphical display or a display map for network administration purposes. Each node on the display map can represent a defined

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component within a distributed network. Different states, such as important states like component outages and/or warnings for monitored components, can be associated with graphical depictions that selectively appear in the display map responsive to gathered network metrics. Displayed icons, icon thresholds, component attributes, and the like can be configured by a user via a graphical user interface. In one embodiment, a multitude of different monitoring bots, or autonomous software agents, can be used as intermediaries between the nodes of the display map and the monitored components, therein forming a layer of abstraction that facilitates interoperability among different hardware/software devices or platforms. It should be appreciated that displaying multiple diversely located metric values upon a single display in a manner easy for an administrator to comprehend can facilitate the administration of heterogeneous systems distributed across a network space.

Turning to the rejections of the art, in paragraph 3, the Examiner has rejected claims 1, 3-5, 7-11, 13-21, 23-24, 26-28, 30-34, and 36-45 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,546,263 to Petty, *et al.* (Petty). Petty discloses a mobile terminal, such as a mobile phone or PDA, that displays an rotating icon. The rotating icon can cycle through various operating conditions of the mobile terminal. For example, as shown in FIG. 1A, the rotating icon can rotate among a battery icon, a reminder icon, a power icon, a clock icon, and an e-mail icon. Each icon can have multiple representations that indicate the status of the depicted condition. For example, as shown in FIG. 1B, the battery icon can indicate full, ¾ full, ½ full, ¼ full, and low states of remaining battery capacity.

Petty is within a non-analogous field of endeavor from the present invention. Petty is limited to and/or directed towards displaying localized phenomena within a mobile device. The present invention provides a means for centrally administering a distributed network by centrally monitoring geographically disperse components. One of ordinary skill in the art would not turn to Petty for teaching pertinent to network administration problems.

Further, even if one were to attempt to apply the teachings of Petty to a non-analogous field, the display method taught by Petty is would be unsuited for the purposes of network administration. That is, to administer a network, visually depicting interactions among various communicatively linked components (as shown in FIG. 2, item (10) of the Applicants'

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specification) can be important. Petty's teachings runs counter to this in that Petty teaches that icons are to be rotated to conserve display space, as opposed to being simultaneously displayed. Consequently, Petty's teachings are not capable of visually depicting inter-component interactions. Consequently, teachings of Perry would render the Applicants invention unsuitable for the purposes for which it is intended.

Referring to claims 1, 10, 19, 23, 24, 33, and 42, Applicants explicitly claim the display of graphics **upon a graphical display** of a machine **remotely located from the component** to which the displayed graphics refers. That is, the display can be a network administrative display indicating the status of remotely located components. Petty does not teach or suggest anything remotely similar.

Petty is limited to displaying icons relating to mobile device states upon a mobile device. Petty overcomes problems of displaying state-based icons upon limited screens typical of mobile devices, as stated at column 1, lines 17-21. Petty is silent in regards to centrally administering distributed networks. Petty **fails** to teach or suggest displaying **icons** pertaining to communicatively linked components **remote** from the **mobile device** in any fashion.

Additionally, Applicants explicitly claim that a **user selection** can determine what graphics are displayed, hence the graphical display of the Applicants is user configurable, as shown in FIG. 2 (items 25 and 20) and as stated in the specification. In contrast, Petty teaches an icon to be presented as the rotating icon can be selected from an icon cycle display list. The selection is performed by an automated component, such as the controller 54a or the processor 49," as stated at column 7, lines 51-54). Petty fails to teach or suggest that a **user selection** determines which of a plurality of possible graphics and/or metrics are to be displayed.

Referring to claims 4, 14, 27, and 27, Applicants claim the use of at least one software agent **located remotely** from the machine upon which the graphical user interface resides. The Examiner incorrectly cites column 7, lines 5-38 of Perry as teaching this limitation. Instead, Perry is stating that the functions attributable to particular localized components can be performed by other localized components than those indicated. Specifically, the separate functions of the signal strength monitor 48 and the mobile terminal processor 49 could be integrated with processor 49, as stated at line 25. Further, "the operation of the rotating-icon

controller 54a (local to the machine having the display) may be performed in software and integrated with the software controlling the display controller 54 (local to the machine having the display. Nowhere does Perry teach or suggest a software agent **remote** from **the machine** upon which the graphical user interface resides.

Additionally, Perry fails to teach or suggest using **software agents**, which are autonomous software units, to interrogate components for metric values. Instead, Perry explicitly teaches using integrated (non-autonomous) software to determine operational states of a mobile device.

Referring to claims 7, 17, 30, and 40 Perry fails to teach or suggest that metrics are selected from a list of **metrics displayed within the graphical user interface**. Instead, Perry teaches use of an "icon cycle display list" which is actually a software data structure like an array, presumably including a multitude of icons and/or icon pointers. The icon cycle display list as described in Perry is unrelated to a list of **metrics displayed within the graphical user interface**.

Referring to claims 9, 18, 32, and 38, Applicants claim the step of determining metric values are **configurably** periodic. Consequently, an administrator could **configure** metric updates to repetitively occur in accordance with an administrator definable time intervals. Perry provides no such teachings. Instead, the cited portion of Perry teaches that cycle times for the rotating icon can depend upon a priority level.

Referring to claims 11, 20, 34, and 43, Applicants explicitly claim that metrics (represented by a displayed icon) are selected from among CPU load, run queue size, memory usage, connections, and disk I/O usage. Perry fails to teach or suggest any of these things. Instead Perry (column 4, lines 15-60 and FIG. 1A) shows an icon can be a battery indicator (41), a reminder (42), a power indicator (43), a clock (44), a warning (45), and/or an e-mail notification (46).

Referring to claim 23, Perry does not contemplate a system or a method that operates within a heterogeneous network of distributed components (heterogeneous CDN). Applicants note other remarks pertaining to claim 23 have been expressed above.

In light of the above remarks, Applicants have shown that Perry fails to anticipate the Applicants' invention. Accordingly, withdrawal of the 35 U.S.C. § 102(e) rejections with respect to claims 1, 3-5, 7-11, 13-21, 23-24, 26-28, 30-34, and 36-45 is respectfully requested.

In paragraph 4, the Examiner has rejected claim 46 under 35 U.S.C. § 103(a) as being unpatentable over Petty and in view of Kodosky. Kodosky provides a system for emulating hardware instruments within a graphical user interface. The emulation system is to be user configurable, so as to constitute a high level computing language for virtual instrumentation construction and/or development, as noted in the claims and in column 18, lines 18-47. In this respect and as noted at column 1 lines 16-19, Kodosky relates to computer systems for modeling processes, where illustrative products of this type would include software programs like PSPICE by Cadence Corp. of San Jose, California that is designed to construct software models of electronic circuits.

Applicants assert that no motivation exists to combine teachings of Perry and Kodosky for purposes of the present invention. Kodosky lacks any teachings or suggestions pertaining to mobile device space constraints or to displaying rotating icons (Perry). From the other perspective, Perry lacks any teachings or suggestions concerning software development languages or emulators (Kodosky). Moreover, neither Perry nor Kodosky teach or suggest techniques to assist network administration of distributed components. In absence of the Applicants' disclosed invention, one of ordinary skill would not contemplate combining the references of Perry and Kodosky in the manner suggested by the Examiner.

Specifically, the Examiner states that "one would have been motivated to make such a combination (of Perry and Kodosky) in order to give users more control in designing elements to represent system components, ensuring that the final display of the component representations will be satisfactory to the user." Applicants are confused by this motivation as users of Perry are not permitted to "design elements to represent system components" in any fashion. Further, the hardware required by Kodosky (a machine permitting hardware instruments to be connected via interface ports) is not present in Perry and is incompatible with the mobile device, like a mobile telephone, in which Perry operates.

Referring to claim 46, Kodosky is cited as teaching that a user can establish maximum and minimum values, where discrete levels are determined between these values, graphics can be associated with each of these values, and these graphics can be selectively displayed within a GUI. Kodosky instead teaches that a minimum and maximum value for an "input control" representing a "virtual instrument" in order to properly emulate physical constraints of an emulated physical instrument. Kodosky's ranges do not have any bearing on which of a plurality of potentially displayable icons will be displayed within a GUI. Likewise, Kodosky fails to permit an administrator to establish demarcation points for operational ranges of network components. Accordingly, withdrawal of the 35 U.S.C. § 103(a) rejection as to claim 46 is respectfully requested.

Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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